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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO.       |
|---|-------------|----------------------|----------------------------------|------------------------|
| 10/090,146  | 03/05/2002  | Chikaho Ikeda        | 112116                           | 5449                   |
| 25944   | 7590        | 08/21/2007           |                                  |                        |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      | EXAMINER<br>FLORES RUIZ, DELMA R |                        |
|   |             |                      | ART UNIT<br>2828                 | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>08/21/2007          | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/090,146

Applicant(s)

IKEDA, CHIKAHO

Examiner

Delma R. Flores Ruiz

Art Unit

2828

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,8-13,28,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13,30 and 31 is/are allowed.
- 6) ☒ Claim(s) 2 and 28 is/are rejected.
- 7) ☒ Claim(s) 3 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

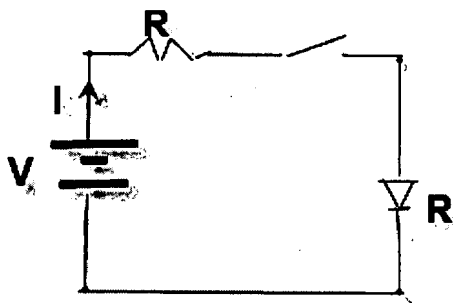
- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**Regarding claim 2**, Nobuaki discloses in Figure 1 an apparatus for driving a light emitting element in response to input data, the light emitting element emitting light by

causing a direct current to flow thereto, the apparatus comprising: a voltage driving section (see Fig. 1, Character 16); and switching section (see Fig. 1, Character 10) disposed between the voltage source (see Fig. 1, Character 16) and the light emitting element (see Fig. 1, Character 12) and controlled on a basis of the input data, wherein, when the switching section (see Fig. 1, Character 10) connects the voltage source (see Fig. 1, Character 16) to the light emitting element (see Fig. 1, Character 12) and the voltage source has a negative feedback loop (see Fig. 1) that negatively feedback an output and amplifies a predetermined input voltage (see Fig. 1, Character 16).

Nobuaki discloses the claimed invention except for a resistance value from an output end of the voltage source to a drive end of the light-emitting element is smaller than an internal resistance value of the internal resistor of the light emitting element. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the resistance value from an output of the voltage must be as small possible, to the resistance value of the internal resistor, to obtain a greater effectiveness on the light emitting element.

E.g. The Voltage on  $R_L = V - IR_i$ . The  $R_L = V$ , therefore the  $R_i$  must be as smaller as possible to obtain a higher efficiency.

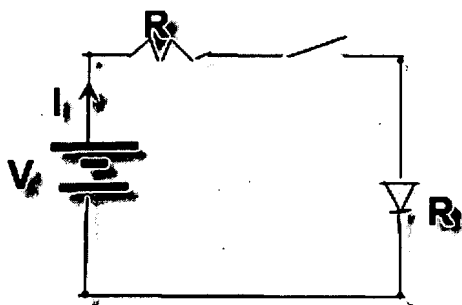


**Regarding claim 28**, Nobuaki discloses in Figure 1 an apparatus for driving a light emitting element in response to input data, the light emitting element emitting light by causing a direct current to flow thereto, the apparatus comprising: a voltage driving section (see Fig. 1, Character 16); and switching section (see Fig. 1, Character 10) disposed between the voltage source (see Fig. 1, Character 16) and the light emitting element (see Fig. 1, Character 12) and controlled on a basis of the input data, a compensating section (see Fig. 1, Character 14) the functional recitation that "for detecting terminal voltage of the light emitting element and compensating fluctuation in temperature of the light emitting element on a basis of the detected terminal voltage of the light emitting element" is insufficient to patentably distinguish the claimed apparatus from the apparatus disclosed by (SMITH)"because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth 35 U.S.C. 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172; 388 O.G. 279, wherein, when the switching section (see Fig. 1, Character 10) connects the voltage source (see Fig. 1, Character 16) to the light-emitting element (see Fig. 1, Character 12).

Nobuaki discloses the claimed invention except for a resistance value from an output end of the voltage source to a drive end of the light-emitting element is smaller than an internal resistance value of the internal resistor of the light emitting element.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the resistance value from an output of the voltage must be as small possible, to the resistance value of the internal resistor, to obtain a greater effectiveness on the light emitting element.

E.g. The Voltage on  $R_L = V - IR_i$ . The  $R_L = V$ , therefore the  $R_i$  must be as smaller as possible to obtain a higher efficiency.



### ***Allowable Subject Matter***

Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8 – 13 and 30-31 are allowed.

### ***Response to Arguments***

Applicant's arguments filed May 24, 2007 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 2-3,5,8-13,28 and 30-31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system; contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2828

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Delma R. Flores Ruiz

Examiner

Art Unit 2828

DRFR/MH

August 16, 2007



Min Sun Harvey

Supervisor Patent Examiner

Art Unit 2828